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| EXAMINER | | | | |
| HEINRICH, SAMUEL M | | | | |
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

PATDOCTC@fr.com

Office Action Summary

Application No.

10/632,096

Applicant(s)

WEICK ET AL.

Examiner

Samuel M. Heinrich

Art Unit

3742

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 August 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10, 12-35 and 37-47 is/are pending in the application.
- 4a) Of the above claim(s) 16-29 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10, 12-15 and 37-47 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 March 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

Claims 16-29 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on February 10, 2005.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-10, 12-15, 30-35, and 37-47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's Admitted Prior Art (AAPA) in view of USPN 6,509,567 to Boudet et al in view of USPN 3,691,478 to Jacobs et al.

AAPA describes (Specification, Background) well known CO₂ laser processing machines, and describes laser cutting of steel sheets, and describes well known monitoring and control of gas with opto-acoustical spectroscopy and photo-acoustical measurement.

Boudet et al describe (column 13, line 55 through column 16) well known photoacoustic gas cell 68 (shown in Figures 23-26) comprising "coupling out a partial beam" and the "partial beam is supplied to a reference detector." Boudet et al describe sound detector microphone 69.

Jacobs et al describe (e.g., Claim 1) a high power laser and means for indicating the laser beam energy with a gas cell.

The use of a well known gas cell monitoring feature in a laser processing machine disclosed by AAPA would have been obvious at the time applicant's invention was made to a person having ordinary skill in the art because it may be used to provide uniform beam energy.

Claims 2 and 40-47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's Admitted Prior Art (AAPA) in view of USPN 6,509,567 to Boudet et al in view of USPN 3,691,478 to Jacobs et al as applied to claims 1 and 30 above, and further in view of USPN 6,075,223 to Harrison.

Harrison describes (column 11, lines 57+) well known equivalent lasers and the use of a CO₂ laser would have been obvious at the time applicant's invention was made to a person having ordinary skill in the art because it effects change in a workpiece.

Claims 3 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's Admitted Prior Art (AAPA) in view of USPN 6,509,567 to Boudet et al in view of USPN 3,691,478 to Jacobs et al as applied to claims 1 and 30 above, and further in view of USPN 4,646,309 to Arisawa et al.

Arisawa et al describe (column 4, lines 45-51) well known diffraction grating and the use thereof would have been obvious at the time applicant's invention was made to a person having ordinary skill in the art because it's old and well known for laser light control.

Claims 4 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's Admitted Prior Art (AAPA) in view of USPN 6,509,567 to Boudet et al in view of USPN 3,691,478 to Jacobs et al as applied to claims 1 and 30 above, and further in view of USPN 5,331,649 to Dacquay et al.

Dacquay et al describe (column 5, lines 7+) well known reflecting to a power measurement cell and reflecting radiation would have been obvious at the time applicant's invention was made to a person having ordinary skill in the art because it allows for a small portion to be sampled.

Claims 5, 6, and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's Admitted Prior Art (AAPA) in view of USPN 6,509,567 to Boudet et al in view of USPN 3,691,478 to Jacobs et al as applied to claims 1 and 30 above, and further in view of USPN 4,112,367 to Hepner et al.

Hepner et al describe (column 1, lines 57-62) use of a semi-transparent mirror and measuring cell and the use thereof would have been obvious at the time applicant's

invention was made to a person having ordinary skill in the art because it is well known for sampling.

Claims 7, 8, and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's Admitted Prior Art (AAPA) in view of USPN 6,509,567 to Boudet et al in view of USPN 3,691,478 to Jacobs et al as applied to claims 1 and 30 above, and further in view of USPN 6,488,626 to Lizzi et al.

Lizzi et al describe (column 6, lines 37-41) well known mechanical and electronic pulse generation and the use thereof would have been obvious at the time applicant's invention was made to a person having ordinary skill in the art because both are known as pulse generators.

Claims 9, 10, and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's Admitted Prior Art (AAPA) in view of USPN 6,509,567 to Boudet et al in view of USPN 3,691,478 to Jacobs et al as applied to claims 1 and 30 above, and further in view of USPN 6,843,102 to Shulga et al.

Shulga et al describes (column 1, lines 53+) well known gas rinse and the use thereof would have been obvious at the time applicant's invention was made to a person having ordinary skill in the art in response to a sensing operation.

Claims 12-14, and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's Admitted Prior Art (AAPA) in view of USPN 6,509,567 to Boudet et al in view of USPN 3,691,478 to Jacobs et al as applied to claim 1 above, and further in view of USPN 5,298,716 to Ogawa et al.

Ogawa et al describe well known cutting gas and the use thereof would have been obvious at the time applicant's invention was made to a person having ordinary skill in the art because it protects the workpiece.

Claims 15 and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's Admitted Prior Art (AAPA) in view of USPN 6,509,567 to Boudet et al in view of USPN 3,691,478 to Jacobs et al as applied to claims 1 and 30 above, and further in view of USPN 6,853,452 to Laufer.

Laufer describes (column 2, lines 24+) well known gas filter and monitoring and the use thereof would have been obvious at the time applicant's invention was made to a person having ordinary skill in the art because monitoring provides process modification parameters.

Claim 38 is rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's Admitted Prior Art (AAPA) in view of USPN 6,509,567 to Boudet et al in view of USPN 3,691,478 to Jacobs et al as applied to claim 1 above, and further in view of USPN 4,722,090 to Haruta et al

Haruta et al describe (column 7, lines 35+) well known returning of the gas to the laser and the use thereof would have been obvious at the time applicant's invention was made to a person having ordinary skill in the art in order to control gas usage.

Response to Arguments

Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The cited art pertain to measuring cell use.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Samuel M. Heinrich whose telephone number is 571-272-1175. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tu B. Hoang can be reached on 571-272-4780. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Samuel M Heinrich/
Primary Examiner, Art Unit 3742